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QUARTERLY PROGRESS REPORT

2nd Quarter 1951
(April, May, June)

FOREST UTILIZATION SERVICE

Central States Forest Experiment Station
Columbus, Ohio

H. L. Mitchell, Director

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Report Delayed by Bullets and Shrapnel.--The Central States FUS unit apologizes for the extreme lateness of this second-quarter progress report. Alibis are poor substitutes for performance, but anyway, here's how it came to pass. The South Atlantic Division, Corps of Engineers, had accepted a bid from a private contractor to log and saw into lumber around 7 million feet of timber on an active military post in the coastal plain area of Virginia. The contract stipulated that the contractor would not be required to saw logs containing metal. All went fairly well for a few hundred thousand board feet while cutting was confined to timber which was so situated that it was probably not in target areas of World War I and World War II maneuvers. Then came a shift to some new locations and two circular mills were retired from service when their saws ran afoul of 50-calibre bullets and schrapnel, mostly well healed over by new wood and bark growth. On one mill, two saws ($250 each) were completely ruined by striking large chunks of steel shrapnel. The Chief of the Contract Administration Branch got in touch with the Forest Service and a cooperative agreement was made to send Brundage to the logging area to examine the metal hazard in general, and make recommendations regarding utilization of the timber. A forester employed by the C of E, and an Army sergeant with experience in using the SCR-625 mine detector were in the metal-survey party. Utilization of the timber as sawlogs was believed to be feasible if searched 100 percent with mine detectors ahead of saw-milling, and a trial run of 100 MBM from sample plots was recommended. This was late in June, with second-quarter report time just around the corner. But time had barely turned the corner when Brundage was called back to Virginia. The test run was about to be started. What happened next is third-quarter news which will be reported shortly. It is enough to note here that delay followed delay, and Brundage was side-tracked from contributing to this report through 83 percent of the succeeding quarter.

Defense Activities.--Both members of FUS devoted approximately six weeks during the quarter to various defense activities. The survey of wood utilization at military establishments was completed early in the quarter, but the equipment and manpower survey will run into the third quarter. In addition,

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two days time was given to working up reports on tax amortization applications, particularly for pulp and paper and rayon viscose companies in Ohio and Indiana. All but a small percentage of the additional pulp for these expansions will come from outside the Central States.

Equipment Demonstrations.--The 1951 Logging and Sawmilling Equipment Show scheduled for this fall in Northeastern Iowa has been postponed. At a meeting in Waukon attended by the several sponsoring agencies it was pointed out that a local situation which had developed rather suddenly could materially affect the success of the proposed demonstration. Rather than risk a show which could fall below the high standards achieved at the previous demonstrations in Illinois, Ohio, and Indiana, the sponsors agreed to call it off. Since no alternative location could be arranged for within the time limits, it was decided to forego any show this year, and plan on holding one somewhere in Iowa in the fall of 1952.

Log Grading Demonstration.--Plans have been completed for a three day training course in log grading to be held at the Lake Hope Recreation Area near Zaleski, Ohio, July 30 to August 2. The course will be held primarily for our own Forest Survey personnel, but a number of foresters from other organizations and from private industry have been invited. The Ohio Division of Forestry will have several of its foresters present and has asked for help in holding its own school later this year. The Ohio Agricultural Experiment Station will also have three men in attendance. Charlie Lockard, Chief of the FUS unit at the Northeastern Station will be the instructor.

Portable Chipper Acquired.--Our Ames Iowa Research Center has purchased an Asplundh chipper for experimental and demonstration work in the use of chips produced from tree tops and limbs for agricultural mulch and soil building. This is one of the smaller Asplundh models designed for attachment to an International Harvester Farmall H Tractor.

Manufacturing Waste Sought by Felt Mill.--The Logan-Long Company of Franklin, Ohio was visited by Brundage as a follow-up on an inquiry to the Forest Products Laboratory for sources of wood waste. The chief chemist wished to increase the proportion of wood fiber in their roofing felt product and thought he could do so at a reasonable cost by obtaining wood waste from nearby wood-working plants. The mill is between Cincinnati and Dayton. Oak or other hard hardwoods were not wanted because of the extra power required to reduce coarse waste to the degree of fineness needed. Although he wanted only 10 tons a day, the chief chemist said he had been unable to locate a suitable supply source in Cincinnati even after personal contacts there. He found plenty of wood residue, but it was either being used for plant fuel, was of the wrong species or if of the right kind was not attainable at reasonable cost. Brundage called on some plants in Dayton and Springfield and ran into the same obstacles. This experience duplicates that of several other much larger paper companies who previously entertained the idea of utilizing wood manufacturing wastes in and around this same general area. Wood-remanufacturing residues used for fuel by the source plants in the Central States area, especially during the winter season, almost invariably turn out to have a higher value for that purpose than potential users of such residues

for other purposes can afford to pay. They have to consider high transportation costs in addition to the raw material. A call will be made next quarter on the Logan-Long Company to see whether they had any success from contacts with other possible sources of supply to which they were referred, and more assistance will be offered, if needed.

Tension Wood Tested for Paper.--Thru cooperative action by the Forest Products Laboratory and Mr. Lane of the Central States Carbondale Branch, samples of cottonwood veneer basket staves were sent for testing to a paper company in Ohio. Some had large amounts of tension wood, which is a prevalent defect in cottonwood, and others were largely normal wood. The company's director of research reported lower quality pulp from the tension-wood material. This is another reason for regretting the lack of funds to step up research on the causes of tension wood formation and how to identify cottonwood trees and logs, if possible, which have it in amounts making the wood unsuitable for either veneer or high-quality pulp. Such research might yield results that can be applied toward better management of riverbottom forests. Brundage plans to visit the paper company next quarter to confer with the director of research about the tests and the company's interest in research of this kind.

Seasoning Troubles.--Brundage followed up on a request to the Laboratory for advice on the seasoning of oak from a furniture company in Norwalk, Ohio. They were losing a lot of wood from honeycomb and checking. Their piling practices were poor in the air yard, they used no end coatings, their kiln controls were defective, and some other items needed revision. A schedule was made out for drying 2-inch oak from the latest Lab publication on kiln schedules. The company was also receiving honeycombed oak previously kiln dried by the supplier.

A similar follow-up call was made on an operator in Indiana who is producing and kiln-drying thick beech lumber for carpenter-saw handles. He was having the usual troubles with surface checking of this species. Since the kiln-drying is done by the producer, he was advised to quarter-saw as much of the beech as possible as one means of reducing surface check.

Wood-Molasses Feeding Tests.--The Dixon Springs Experiment Station, University of Illinois, and the two stations in Missouri where TVA molasses was used to preserve grass silage last summer for winter feeding of cattle, were visited by Dr. Harris and Mr. Lloyd of the Forest Products Laboratory and Mr. Brundage. Dr. Locke, now Chief of the Division of Derived Products at the Forest Products Laboratory, visited the Dixon Springs Station also. As previously reported, this initial run of molasses from the TVA pilot plant was not up to standard because of operating difficulties which have since been corrected. Aside from the difficulties of handling the non-uniform molasses at the time of mixing the silage, verbal reports on the tests at Dixon Springs and Hannibal were more favorable than had been expected. The silage at Columbia had turned out definitely bad, however, and should have been discarded. It was a smaller quantity than prepared at the Hannibal Station and was probably over-heated during the curing period. No typed or printed reports had been prepared for any of the tests up to the time of last inquiry. TVA kindly offered to supply more molasses from the improved pilot plant this year to both Illinois and

Missouri, and samples were provided to show its better quality. Dixon Springs requested 4 tons and Hannibal 2½ tons. These amounts were sent by TVA in May and more silage has been prepared for feeding this winter. Brundage will try again next quarter to obtain written reports on the tests of the 1950 molasses.

Forest Products Research Society.--Day attended the first three days of the Forest Products Research Society annual meeting at Philadelphia early in May. He discussed with Frank Rovsek, Executive Secretary of the Society and with others there, the need for an Ohio Valley Section to fill the void between the Midwest and deep South sections. As of this writing an organizational meeting for the formation of such a section is scheduled for October at Louisville, Kentucky. Harold Moser of Gamble Brothers and Phillip Hayward of the Hardwood Dimension Association are temporary Chairman and Vice Chairman for this meeting.

Annual Program Conference.--Both Brundage and Day participated in the annual program conference at the Forest Products Laboratory the week of May 14. Other members of the station in part time attendance at this conference were Director H. L. Mitchell and Robert Merz, in charge of our Athens, Ohio Research Center.

Distribution of this progress report

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